ABSTRACT OF THE DISCLOSURE

METHOD AND APPARATUS FOR SHARING SIGNAL PINS ON AN INTERFACE BETWEEN A SYSTEM CONTROLLER AND PERIPHERAL INTEGRATED CIRCUITS

A method and apparatus for sharing signal pins on an interface between a system controller and peripheral integrated circuits reduces the number of signal pins required on a system controller integrated circuit. Signals of differing types are qualified by an internal peripheral select signal from which chip select signals for a plurality of externally interfaced peripheral integrated circuits are generated. The interface functions so that a single signal pin may be used for carrying different signal types between the system controller and each of the peripheral integrated circuits. The use of the internal peripheral select signal ensures that the setup times for the selection circuitry and pin drivers are met before a chip select signal enables communication with a selected peripheral and that a hold time is maintained for signals on shared interface pins so that the peripheral integrated circuits receive valid inputs from shared pins.